

1           **In the Claims**

2           Claims 1-9, 11-17 and 19-41 are amended.

3           Claims 1-41 remain in the application and are listed below as follows:

4

5           1. (Currently Amended) A software architecture for a distributed  
6 computing system comprising:

7                 an application configured to handle requests submitted by remote devices  
8 over a network; [[and]]

9                 an application program interface to present functions used by the  
10 application to access network and computing resources of the distributed  
11 computing system; and

12                 a common language runtime layer that can translate Web applications  
13 written in different languages into an intermediate language supported by the  
14 common runtime layer.

15

16           2. (Currently Amended) A The software architecture as recited in claim  
17 1, wherein the distributed computing system comprises client devices and server  
18 devices that handle requests from the client devices, the remote devices  
19 comprising at least one client device.

20

21           3. (Currently Amended) A The software architecture as recited in claim  
22 1, wherein the distributed computing system comprises client devices and server  
23 devices that handle requests from the client devices, the remote devices  
24 comprising at least one server device that is configured as a Web server.

1       4. (Currently Amended) A The software architecture as recited in claim  
2, wherein the application program interface comprises:

- 3           a first group of services related to creating Web applications;
- 4           a second group of services related to constructing client applications;
- 5           a third group of services related to data and handling XML documents; and
- 6           a fourth group of services related to base class libraries.

7  
8       5. (Currently Amended) An application program interface embodied on  
9 one or more computer readable media, comprising:

- 10          a first group of services related to creating Web applications;
- 11          a second group of services related to constructing client applications;
- 12          a third group of services related to data and handling XML documents; and
- 13          a fourth group of services related to base class libraries; and further  
comprising:

14  
15           a common language runtime layer that can translate Web  
16           applications written in different languages into an intermediate language  
17           supported by the common runtime layer.

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19       6. (Currently Amended) A The application program interface as recited  
20 in claim 5, wherein the first group of services comprises:

- 21          first functions that enable construction and use of Web services;
- 22          second functions that enable temporary caching of frequently used  
23 resources;
- 24          third functions that enable initial configuration;
- 25          fourth functions that enable creation of controls and Web pages;

1       fifth functions that enable security in Web server applications; and  
2       sixth functions that enable access to session state values.

3

4       7. (Currently Amended) A The application program interface as recited  
5       in claim 5, wherein the second group of services comprises:

6           first functions that enable creation of windowing graphical user interface  
7       environments; and  
8           second functions that enable graphical functionality.

9

10       8. (Currently Amended) A The application program interface as recited  
11       in claim 5, wherein the third group of services comprises:

12           first functions that enable management of data from multiple data sources;  
13       and  
14           second functions that enable XML processing.

15

16       9. (Currently Amended) A The application program interface as recited  
17       in claim 5, wherein the fourth group of services comprises:

18           first functions that enable definitions of various collections of objects;  
19           second functions that enable programmatic access to configuration settings  
20       and handling of errors in configuration files;

21           third functions that enable application debugging and code execution  
22       tracing;

23           fourth functions that enable customization of data according to cultural  
24       related information;

25           fifth functions that enable input/output of data;

1       sixth functions that enable a programming interface to network protocols;  
2       seventh functions that enable a managed view of types, methods, and fields;  
3       eighth functions that enable creation, storage and management of various  
4 culture-specific resources;  
5       ninth functions that enable system security and permissions;  
6       tenth functions that enable installation and running of services;  
7       eleventh functions that enable character encoding;  
8       twelfth functions that enable multi-threaded programming; and  
9       thirteenth functions that facilitate runtime operations.

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11      10. (Original) A network software architecture comprising the  
12 application program interface as recited in claim 5.

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14      11. (Currently Amended) A distributed computer software architecture,  
15 comprising:

16       one or more applications configured to be executed on one or more  
17 computing devices, the one or more applications handling requests submitted from  
18 remote computing devices;

19       a networking platform to support the one or more applications; [[and]]  
20       an application programming interface to interface the one or more  
21 applications with the networking platform; and

22       a common language runtime layer that can translate Web applications  
23 written in different languages into an intermediate language supported by the  
24 common runtime layer.

1           12. (Currently Amended) A The distributed computer software  
2 architecture as recited in claim 11, further comprising a remote application  
3 configured to be executed on one of the remote computing devices, the remote  
4 application using the application programming interface to access the networking  
5 platform.

6  
7           13. (Currently Amended) A The distributed computer software  
8 architecture as recited in claim 11, wherein the application programming interface  
9 comprises:

- 10           a first group of services related to creating Web applications;  
11           a second group of services related to constructing client applications;  
12           a third group of services related to data and handling XML documents; and  
13           a fourth group of services related to base class libraries.

14  
15           14. (Currently Amended) A The distributed computer software  
16 architecture as recited in claim 11, wherein the application programming interface  
17 exposes multiple functions comprising:

- 18           first functions that enable construction and use of Web services;  
19           second functions that enable temporary caching of frequently used  
20 resources;  
21           third functions that enable initial configuration;  
22           fourth functions that enable creation of controls and Web pages;  
23           fifth functions that enable security in Web server applications; and  
24           sixth functions that enable access to session state values.

1       15. (Currently Amended) A The distributed computer software  
2 architecture as recited in claim 11, wherein the application programming interface  
3 exposes multiple functions comprising:

4             first functions that enable creation of windowing graphical user interface  
5 environments; and

6             second functions that enable graphical functionality.

7  
8       16. (Currently Amended) A The distributed computer software  
9 architecture as recited in claim 11, wherein the application programming interface  
10 exposes multiple functions comprising:

11             first functions that enable management of data from multiple data sources;  
12 and

13             second functions that enable XML processing.

14  
15       17. (Currently Amended) A The distributed computer software  
16 architecture as recited in claim 11, wherein the application programming interface  
17 exposes multiple functions comprising:

18             first functions that enable definitions of various collections of objects;  
19             second functions that enable programmatic access to configuration settings  
20 and handling of errors in configuration files;

21             third functions that enable application debugging and code execution  
22 tracing;

23             fourth functions that enable customization of data according to cultural  
24 related information;

25             fifth functions that enable input/output of data;

1       sixth functions that enable a programming interface to network protocols;  
2       seventh functions that enable a managed view of loaded types, methods,  
3 and fields;

4       eighth functions that enable creation, storage and management of various  
5 culture-specific resources;

6       ninth functions that enable system security and permissions;

7       tenth functions that enable installation and running of services;

8       eleventh functions that enable character encoding;

9       twelfth functions that enable multi-threaded programming; and

10      thirteenth functions that facilitate runtime operations.

11  
12      18. (Original) A computer system including one or more  
13 microprocessors and one or more software programs, the one or more software  
14 programs utilizing an application program interface to request services from an  
15 operating system, the application program interface including separate commands  
16 to request services consisting of the following groups of services:

17       A. a first group of services related to creating Web applications:

18           constructing Web services;

19           temporary caching resources;

20           performing initial configuration;

21           creating controls and Web pages;

22           enabling security in Web server applications;

23           accessing session state values;

24       B. a second group of services related to constructing client applications:

25           creating windowing graphical user interface environments;

1                   enabling graphical functionality;

2                   C. a third group of services related to data and handling XML documents:

3                   enabling management of data from multiple data sources;

4                   second functions that enable XML processing.

5                   D. a fourth group of services related to base class libraries:

6                   defining various collections of objects;

7                   accessing configuration settings and handling errors in configuration files;

8                   debugging and tracing code execution;

9                   customizing data according to cultural related information;

10                  inputting and outputting of data;

11                  enabling a programming interface to network protocols;

12                  viewing loaded types, methods, and fields;

13                  creating, storing and managing various culture-specific resources;

14                  enabling system security and permissions;

15                  installing and running services;

16                  enabling character encoding;

17                  enabling multi-threaded programming; and

18                  facilitating runtime operations.

19

20                 19. (Currently Amended) A system comprising:

21                 means for exposing a first set of functions that enable browser/server

22                 communication;

23                 means for exposing a second set of functions that enable drawing and

24                 construction of client applications;

25

1 means for exposing a third set of functions that enable connectivity to data  
2 sources and XML functionality; and

3 means for exposing a fourth set of functions that enable system and runtime  
4 functionality; and

5 means for translating Web applications written in different languages into  
6 an intermediate language supported by a common runtime layer.

7  
8 20. (Currently Amended) A The system as recited in claim 19, wherein  
9 the first set of functions comprises:

10 first functions that enable construction and use of Web services;

11 second functions that enable temporary caching of frequently used  
12 resources;

13 third functions that enable initial configuration;

14 fourth functions that enable creation of controls and Web pages;

15 fifth functions that enable security in Web server applications; and

16 sixth functions that enable access to session state values.

17  
18 21. (Currently Amended) A The system as recited in claim 19, wherein  
19 the second set of functions comprises:

20 first functions that enable creation of windowing graphical user interface  
21 environments; and

22 second functions that enable graphical functionality.

23  
24 22. (Currently Amended) A The system as recited in claim 19, wherein  
25 the third set of functions comprises:

1           first functions that enable management of data from multiple data sources;

2 and

3           second functions that enable XML processing.

4

5       23. (Currently Amended) A The system as recited in claim 19, wherein  
6 the fourth set of functions comprises:

7           first functions that enable definitions of various collections of objects;

8           second functions that enable programmatic access to configuration settings  
9 and handling of errors in configuration files;

10          third functions that enable application debugging and code execution  
11 tracing;

12          fourth functions that enable customization of data according to cultural  
13 related information;

14          fifth functions that enable input/output of data;

15          sixth functions that enable a programming interface to network protocols;

16          seventh functions that enable a managed view of loaded types, methods,  
17 and fields;

18          eighth functions that enable creation, storage and management of various  
19 culture-specific resources;

20          ninth functions that enable system security and permissions;

21          tenth functions that enable installation and running of services;

22          eleventh functions that enable character encoding;

23          twelfth functions that enable multi-threaded programming; and

24          thirteenth functions that facilitate runtime operations.

1       24. (Currently Amended) A method implemented at least in part by a  
2       computer, comprising:

3             managing network and computing resources for a distributed computing  
4       system; [[and]]

5             exposing a set of functions that enable developers to access the network and  
6       computing resources of the distributed computing system, the set of functions  
7       comprising first functions to facilitate browser/server communication, second  
8       functions to facilitate construction of client applications, third functions to  
9       facilitate connectivity to data sources and XML functionality, and fourth functions  
10      to access system and runtime resources; and

11             providing a common language runtime layer that can translate Web  
12       applications written in different languages into an intermediate language supported  
13       by the common runtime layer.

14

15       25. (Currently Amended) A The method as recited in claim 24, further  
16       comprising receiving a request from a remote computing device, the request  
17       containing a call to at least one of the first, second, third, and fourth functions.

18

19       26. (Currently Amended) A method implemented at least in part by a  
20       computer, comprising:

21             creating a first namespace with functions that enable browser/server  
22       communication;

23             creating a second namespace with functions that enable drawing and  
24       construction of client applications;

1 creating a third namespace with functions that enable connectivity to data  
2 sources and XML functionality; [[and]]

3 creating a fourth namespace with functions that enable system and runtime  
4 functionality; and

5 providing a common language runtime layer that can translate Web  
6 applications written in different languages into an intermediate language supported  
7 by the common runtime layer.

8  
9 27. (Currently Amended) A The method as recited in claim 26, wherein  
10 the first namespace defines classes that facilitate:

11 construction and use of Web services;  
12 temporary caching of resources;  
13 initial configuration;  
14 creation of controls and Web pages;  
15 security in Web server applications; and  
16 access to session state values.

17  
18 28. (Currently Amended) A The method as recited in claim 26, wherein  
19 the second namespace defines classes that facilitate:

20 creation of windowing graphical user interface environments; and  
21 graphical functionality.

22  
23 29. (Currently Amended) A The method as recited in claim 26, wherein  
24 the third namespace defines classes that facilitate:

25 management of data from multiple data sources; and

1 processing of XML documents.

2

3 30. (Currently Amended) A The method as recited in claim 26, wherein  
4 the fourth namespace defines classes that facilitate:

5 programmatic access to configuration settings and handling of errors in  
6 configuration files;

7 application debugging and code execution tracing;

8 customization of data according to cultural related information;

9 inputting and outputting of data;

10 interfacing to network protocols;

11 viewing loaded types, methods, and fields;

12 creation, storage and management of various culture-specific resources;

13 system security and permissions;

14 installation and running of services;

15 character encoding;

16 multi-threaded programming; and

17 runtime operations.

18

19 31. (Currently Amended) A method implemented at least in part by a  
20 computer, comprising:

21 calling one or more first functions to facilitate browser/server  
22 communication;

23 calling one or more second functions to facilitate construction of client  
24 applications;

1 calling one or more third functions to facilitate connectivity to data sources  
2 and XML functionality; [[and]]

3 calling one or more fourth functions to access system and runtime  
4 resources; and

5 using a common language runtime layer that can translate Web applications  
6 written in different languages into an intermediate language supported by the  
7 common runtime layer.

8  
9 32. (Currently Amended) A The method as recited in claim [[36]] 31,  
10 wherein the first functions comprise functions for construction and use of Web  
11 services, temporary caching of resources, initial configuration, creation of controls  
12 and pages that will appear as user interfaces, securing Web server applications,  
13 and accessing session state values.

14  
15 33. (Currently Amended) A The method as recited in claim [[36]] 31,  
16 wherein the second functions comprise functions for creation of windowing  
17 graphical user interface environments, and graphical functionality.

18  
19 34. (Currently Amended) A The method as recited in claim [[36]] 31,  
20 wherein the third functions comprise functions for management of data from  
21 multiple data sources, and XML processing.

22  
23 35. (Currently Amended) A The method as recited in claim [[36]] 31,  
24 wherein the fourth functions comprise functions for programmatic access to  
25 configuration settings, application debugging and code execution tracing,

1 customization of text according to cultural related information, synchronous and  
2 asynchronous reading from and writing to data streams and files, creation and  
3 management of various culture-specific resources, system security and  
4 permissions, installation and running of services, character encoding, and multi-  
5 threaded programming.

6

7       36. (Currently Amended) A method implemented at least in part by a  
8 computer, comprising:

9           receiving one or more calls to one or more first functions to facilitate  
10 browser/server communication;

11           receiving one or more calls to one or more second functions to facilitate  
12 construction of client applications;

13           receiving one or more calls to one or more third functions to facilitate  
14 connectivity to data sources and XML functionality; [[and]]

15           receiving one or more calls to one or more fourth functions to access  
16 system and runtime resources; and

17           using a common language runtime layer that can translate Web applications  
18 written in different languages into an intermediate language supported by the  
19 common runtime layer.

20

21       37. (Currently Amended) A The method as recited in claim [[31]] 36,  
22 wherein the first functions comprise functions for construction and use of Web  
23 services, temporary caching of resources, initial configuration, creation of controls  
24 and pages that will appear as user interfaces, securing Web server applications,  
25 and accessing session state values.

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2       38. (Currently Amended) A The method as recited in claim [[31]] 36,  
3 wherein the second functions comprise functions for creation of windowing  
4 graphical user interface environments, and graphical functionality.

5  
6       39. (Currently Amended) A The method as recited in claim [[31]] 36,  
7 wherein the third functions comprise functions for management of data from  
8 multiple data sources, and XML processing.

9  
10      40. (Currently Amended) A The method as recited in claim [[31]] 36,  
11 wherein the fourth functions comprise functions for programmatic access to  
12 configuration settings, application debugging and code execution tracing,  
13 customization of text according to cultural related information, synchronous and  
14 asynchronous reading from and writing to data streams and files, creation and  
15 management of various culture-specific resources, system security and  
16 permissions, installation and running of services, character encoding, and multi-  
17 threaded programming.

18  
19      41. (Currently Amended) A method implemented at least in part by a  
20 computer, for exposing resources using an application program interface,  
21 comprising:

22       A. exposing a first group of services related to creating Web applications,  
23 including:

24           constructing Web services;

25           temporary caching resources;

1 performing initial configuration;

2 creating controls and Web pages;

3 enabling security in Web server applications;

4 accessing session state values;

5 B. exposing a second group of services related to constructing client

6 applications, including:

7 creating windowing graphical user interface environments;

8 enabling graphical functionality;

9 C. exposing a third group of services related to data and handling XML

10 documents, including:

11 enabling management of data from multiple data sources;

12 second functions that enable XML processing.

13 D. exposing a fourth group of services related to base class libraries,

14 including:

15 defining various collections of objects;

16 accessing configuration settings and handling errors in configuration files;

17 debugging and tracing code execution;

18 customizing data according to cultural related information;

19 inputting and outputting of data;

20 enabling a programming interface to network protocols;

21 viewing loaded types, methods, and fields;

22 creating, storing and managing various culture-specific resources;

23 enabling system security and permissions;

24 installing and running services;

25 enabling character encoding;

1 enabling multi-threaded programming; and  
2 facilitating runtime operations.

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